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the first node of said bridge capacitor (6) is connected to the first node of said switching bridge (3), and

the second node of each phase of said load (5) is connected to the output node of the appropriate phase of said switching bridge (3).

## 34. The mono-phase boost bridge amplifier of claim 33, wherein

the first node of said power supply (1) is connected to the first node of the first phase (51) of said load (5),

the second node of said power supply (1) is connected to the second node of said switching bridge (3) and the second node of said bridge capacitor (6),

the first node of said bridge capacitor (6) is connected to the first node of said switching bridge (3),

the second node of the first phase (51) of said load (5) is connected to the third node of said switching bridge (3),

the first active switch (31) of said switching bridge (3) is connected between the first and third nodes of said switching bridge (3),

the first diode (71) anode is connected to the third node of said switching bridge (3), and the first diode (71) cathode is connected to the first node of said switching bridge (3),

the second active switch (32) of said switching bridge (3) is connected between the third and second nodes of said switching bridge (3), and

the second diode (72) anode is connected to the second node of said switching bridge (3), and the second diode (72) cathode is connected to the third node of said switching bridge (3).

## 35. The mono-phase boost bridge amplifier of claim 34, wherein

the second node of said power supply (1) is connected to the first node of the first phase (51) of said load (5),

the first node of said power supply (1) is connected to the first node of said switching bridge (3) and the first node of said bridge capacitor (6), and

the second node of said bridge capacitor (6) is connected to the second node of said switching bridge (3).

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The boost bridge amplifier of claim 35, wherein all active switches are semiconductor switches, such as mosfets, IGBT, bipolar transistors or MCT.

The boost bridge amplifier of claim 34, wherein all active switches are 37. semiconductorswitches, such as mosfets, IGBT, bipolar transistors or MCT.

#### The two-phase boost bridge amplifier of claim 33, wherein 38.

the first node of said power supply (1) is connected to the first node of the first phase (51) of said load (5) and the first node of the second phase (52) of said load (5),

the second node of said power supply (1) is connected to the second node of said switching bridge (3) and the second node of said bridge capacitor (6),

the first node of said bridge capacitor (6) is connected to the first node of said switching bridge (3),

the second node of the first phase (51) of said load (5) is connected to the third node of said switching bridge (3),

the second node of the second phase (52) of said load (5) is connected to the fourth node of said switching bridge (3),

the first active switch (31) of said switching bridge (3) is connected between the first and third nodes of said switching bridge (3),

the first diode (71) anode is connected to the third node of said switching bridge (3), and the first diode (71) cathode is connected to the first node of said switching bridge (3),

the second active switch (32) of said switching bridge (3) is connected between the third and second nodes of said switching bridge (3),

the second diode (72) anode is connected to the second node of said switching bridge (3), and the second diode (72) cathode is connected to the third node of said switching bridge (3),

the third active switch (33) of said switching bridge (3) is connected between the first and fourth nodes of said switching bridge (3),

the third diode (73) anode is connected to the fourth node of said switching bridge (3), and the third diode (73) cathode is connected to the first node of said switching bridge (3),

the fourth active switch (34) of said switching bridge (3) is connected between the fourth and second nodes of said switching bridge (3), and

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the fourth diode (74) anode is connected to the second node of said switching bridge (3), and the fourth diode (74) cathode is connected to the fourth node of said switching bridge (3).

39. The boost bridge amplifier of claim 38, wherein load (5) is a dual voice coil loudspeaker.

40. The two-phase boost bridge amplifier of claim 38, wherein

the second node of said power supply (1) is connected to the first node of the first phase (51) of said load (5) and the first node of the second phase (52) of said load (5),

the first node of said power supply (1) is connected to the first node of said switching bridge (3) and the first node of said bridge capacitor (6), and

the second node of said bridge capacitor (6) is connected to the second node of said switching bridge (3).

41. The two-phase boost bridge amplifier of claim 40, wherein

the third node of said switching bridge (3) is connected to the first node of the filtering capacitor (91),

the second node of said filtering capacitor (91) is connected to the first node of an additional load (92), and

the second node of said additional load (92) is connected to the fourth node of said switching bridge (3).

- 42. The boost bridge amplifier of claim 40, wherein load (5) is a dual voice coil loudspeaker.
- 43. The boost bridge amplifier of claim 40, wherein all active switches are semiconductor switches, such as mosfets, IGBT, bipolar transistors or MCT.
- 44. The two-phase boost bridge amplifier of claim 38, wherein the third node of said switching bridge (3) is connected to the first node of the filtering capacitor (91),

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the second node of said filtering capacitor (91) is connected to the first node of an additional load (92), and

the second node of said additional load (92) is connected to the fourth node of said switching bridge (3).

45. The boost bridge amplifier of claim 38, wherein all active switches are semiconductor switches, such as mosfets, IGBT, bipolar transistors or MCT.

### 46. The three-phase boost bridge amplifier of claim 33, wherein

the first node of said power supply (1) is connected to the first node of the first phase (51) of said load (5), the first node of the second phase (52) of said load (5), and the first node of the third phase (53) of said load (5),

the second node of said power supply (1) is connected to the second node of said switching bridge (3) and the second node of said bridge capacitor (6),

the first node of said bridge capacitor (6) is connected to the first node of said switching bridge (3),

the second node of the first phase (51) of said load (5) is connected to the third node of said switching bridge (3),

the second node of the second phase (52) of said load (5) is connected to the fourth node of said switching bridge (3),

the second node of the third phase (53) of said load (5) is connected to the fifth node of said switching bridge (3),

the first active switch (31) of said switching bridge (3) is connected between the first and third nodes of said switching bridge (3),

the first diode (71) anode is connected to the third node of said switching bridge (3), and the first diode (71) cathode is connected to the first node of said switching bridge (3),

the second active switch (32) of said switching bridge (3) is connected between the third and second nodes of said switching bridge (3),

the second diode (72) anode is connected to the second node of said switching bridge (3), and the second diode (72) cathode is connected to the third node of said switching bridge (3),

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the third active switch (33) of said switching bridge (3) is connected between the first and fourth nodes of said switching bridge (3),

the third diode (73) anode is connected to the fourth node of said switching bridge (3), and the third diode (73) cathode is connected to the first node of said switching bridge (3),

the fourth active switch (34) of said switching bridge (3) is connected between the fourth and second nodes of said switching bridge (3),

the fourth diode (74) anode is connected to the second node of said switching bridge (3), and the fourth diode (74) cathode is connected to the fourth node of said switching bridge (3),

the fifth active switch (35) of said switching bridge (3) is connected between the first and fifth nodes of said switching bridge (3),

the fifth diode (75) and is connected to the fifth node of said switching bridge (3), and the fifth diode (75) cathode is connected to the first node of said switching bridge (3),

the sixth active switch (36) of said switching bridge (3) is connected between the fifth and second nodes of said switching bridge (3), and

the sixth diode (76) anode is connected to the second node of said switching bridge (3), and the sixth diode (76) cathode is connected to the fifth node of said switching bridge (3).

## 47. The three-phase boost bridge amplifier of claim 46, wherein

the second node of said power supply (1) is connected to the first node of the first phase (51) of said load (5), the first node of the second phase (52) of said load (5), and the first node of the third phase (53) of said load (5),

the first node of said power supply (1) is connected to the first node of said switching bridge (3) and the first node of said bridge capacitor (6), and

the second node of said bridge capacitor (6) is connected to the second node of said switching bridge (3).

- 48. The boost bridge amplifier of claim 47, wherein load (5) is a three-phase electric motor.
- 49. The boost bridge amplifier of claim 47, wherein all active switches are semiconductor switches, such as mosfets, IGBT, bipolar transistors or MCT.

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50. The boost bridge amplifier of claim 46, wherein load (5) is a three-phase electric motor.

The boost bridge amplifier of claim 46, wherein all active switches are semiconductor switches, such as mosfets, IGBT, bipolar transistors or MCT.

- 52. The boost bridge amplifier of claim 33, wherein load (5) is a dual voice coil loudspeaker.
- 53. The boost bridge amplifier of claim 33, wherein load (5) is a three-phase electric motor.
  - 54. The boost bridge amplifier comprising:

a power supply (1), having a first and a second nodes,

a mono- or poly-phase load (5), having a first and a second nodes per each phase,

an output filter (4), having a first and a second nodes per each phase,

a switching bridge (3), having a first and a second nodes, common for all phases, and an output node per each phase,

a bridge capacitor (6), having a first and a second nodes,

characterized in that,

the first node of said power supply (1) is connected to the first node of each phase of said load (5),

the second node of said power supply (1) is connected to the second node of said switching bridge (3) and the second node of said bridge capacitor (6),

the first node of said bridge capacitor (6) is connected to the first node of said switching bridge (3),

the second node of each phase of said load (5) is connected to the first node of the appropriate phase of said output filter (4), and

the second node of each phase of said output filter (4) is connected to the output node of the appropriate phase of said switching bridge (3).

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55. The mono-phase boost bridge amplifier of claim 54, wherein

the first node of said power supply (1) is connected to the first node of first phase (51) of said load (5),

the second node of said power supply (1) is connected to the second node of said switching bridge (3) and the second node of said bridge capacitor (6),

the first node of said bridge capacitor (6) is connected to the first node of said switching bridge (3),

the second node of the first phase (51) of said load (5) is connected to the first node of first filtering inductor (41),

the second node of first filtering inductor (41) is connected to the third node of said switching bridge (3),

the first active switch (31) of said switching bridge (3) is connected between the first and third nodes of said switching bridge (3),

the first diode (71) anode is connected to the third node of said switching bridge (3), and the first diode (71) cathode is connected to the first node of said switching bridge (3),

the second active switch (32) of said switching bridge (3) is connected between the third and second nodes of said switching bridge (3), and

the second diode (72) anode is connected to the second node of said switching bridge (3), and the second diode (72) cathode is connected to the third node of said switching bridge (3).

56. The mono-phase boost bridge amplifier of claim 55, wherein

the first node of the first filtering inductor (41) is connected to the first node of the first filtering capacitor (81), and

the second node of said bridge capacitor (6) is connected to the second node of the first filtering capacitor (81).

- 57. The boost bridge amplifier of claim 56, wherein all active switches are semiconductor switches, such as mosfets, IGBT, bipolar transistors or MCT.
  - 58. The mono-phase boost bridge amplifier of claim 55, wherein

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the second node of said power supply (1) is connected to the first node of the first phase (51) of said load (5),

the first node of said power supply (1) is connected to the first node of said switching bridge (3) and the first node of said bridge capacitor (6), and

the second node of said bridge capacitor (6) is connected to the second node of said switching bridge (3).

59. The mono-phase boost bridge amplifier of claim 58, wherein

the first node of the first filtering inductor (41) is connected to the first node of the first filtering capacitor (81), and

the first node of said bridge capacitor (6) is connected to the second node of the first filtering capacitor (81).

- 60. The boost bridge amplifier of claim 59, wherein all active switches are semiconductor switches, such as mosfets, IGBT, bipolar transistors or MCT.
- 61. The boost bridge amplifier of claim 58, wherein all active switches are semiconductor switches, such as mosfets, IGBT bipolar transistors or MCT.
- 62. The boost bridge amplifier of claim 55, wherein all active switches are semiconductor switches, such as mosfets, IGBT, bipolar transistors or MCT.
  - 63. The two-phase boost bridge amplifier of claim \$4, wherein

the first node of said power supply (1) is connected to the first node of first phase (51) of said load (5) and the first node of the second phase (52) of said load (5),

the second node of said power supply (1) is connected to the second node of said switching bridge (3) and the second node of said bridge capacitor (6),

the first node of said bridge capacitor (6) is connected to the first node of said switching bridge (3),

the second node of first phase (51) of said load (5) is connected to the first node of the first filtering inductor (41),

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the second node of the first filtering inductor (41) is connected to the third node of said switching bridge (3),

the second node of the second phase (52) of said load (5) is connected to the first node of the second filtering inductor (42),

the second node of the second filtering inductor (42) is connected to the fourth node of said switching bridge (3),

the first active switch (31) of said switching bridge (3) is connected between the first and third nodes of said switching bridge (3),

the first diode (71) anode is connected to the third node of said switching bridge (3), and the first diode (71) cathode is connected to the first node of said switching bridge (3),

the second active switch (32) of said switching bridge (3) is connected between the third and second nodes of said switching bridge (3),

the second diode (72) anode is connected to the second node of said switching bridge (3), and the second diode (72) cathode is connected to the third node of said switching bridge (3),

the third active switch (33) of said switching bridge (3) is connected between the first and fourth nodes of said switching bridge (3),

the third diode (73) anode is connected to the fourth node of said switching bridge (3), and the third diode (73) cathode is connected to the first node of said switching bridge (3),

the fourth active switch (34) of said switching bridge (3) is connected between the fourth and second nodes of said switching bridge (3), and

the fourth diode (74) anode is connected to the second node of said switching bridge (3), and the fourth diode (74) cathode is connected to the fourth node of said switching bridge (3).

## 64. The two-phase boost bridge amplifier of claim 63, wherein

the first node of the first filtering inductor (41) is connected to the first node of the first filtering capacitor (81),

the second node of said bridge capacitor (6) is connected to the second node of the first filtering capacitor (81),

the first node of the second filtering inductor (42) is connected to the first node of the second filtering capacitor (82), and

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the second node of said bridge capacitor (6) is connected to the second node of the second filtering capacitor (82).

65.\ The two-phase boost bridge amplifier of claim 64, wherein

the third node of said switching bridge (3) is connected to the first node of the filtering capacitor (91),

the second node of said filtering capacitor (91) is connected to the first node of an additional load (92), and

the second node of said additional load (92) is connected to the fourth node of said switching bridge (3).

- 66. The boost bridge amplifier of claim 64, wherein load (5) is a dual voice coil loudspeaker.
- 67. The boost bridge amplifier of claim 64, wherein all active switches are semiconductor switches, such as mosfets, IGBT, bipolar transistors or MCT.
  - 68. The two-phase boost bridge amplifier of claim 63, wherein

the second node of said power supply (1) is connected to the first node of the first phase (51) of said load (5) and the first node of the second phase (52) of said load (5),

the first node of said power supply (1) is connected to the first node of said switching bridge (3) and the first node of said bridge capacitor (6), and

the second node of said bridge capacitor (6) is connected to the second node of said switching bridge (3).

69. The two-phase boost bridge amplifier of claim 68, wherein

the first node of the first filtering inductor (41) is connected to the first node of the first filtering capacitor (81),

the first node of said bridge capacitor (6) is connected to the second node of the first filtering capacitor (81),

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the first node of the second filtering inductor (42) is connected to the first node of the second filtering capacitor (82), and

the first node of said bridge capacitor (6) is connected to the second node of the second filtering capacitor (82).

70. The two-phase boost bridge amplifier of claim 69, wherein

the third node of said switching bridge (3) is connected to the first node of the filtering capacitor (91),

the second node of said filtering capacitor (91) is connected to the first node of an additional load (92), and

the second node of said additional load (92) is connected to the fourth node of said switching bridge (3).

- 71. The boost bridge amplifier of claim 69, wherein load (5) is a dual voice coil loudspeaker.
- 72. The boost bridge amplifier of claim 69, wherein all active switches are semiconductor switches, such as mosfets, IGBT bipolar transistors or MCT.
  - 73. The two-phase boost bridge amplifier of claim 68, wherein

the third node of said switching bridge (3) is connected to the first node of the filtering capacitor (91),

the second node of said filtering capacitor (91) is connected to the first node of an additional load (92), and

the second node of said additional load (92) is connected to the fourth node of said switching bridge (3).

74. The boost bridge amplifier of claim 68, wherein load (5) is a dual voice coil loudspeaker.

- The boost bridge amplifier of claim 68, wherein all active switches are 75. semiconductor switches, such as mosfets, IGBT, bipolar transistors or MCT.
  - The two-phase boost bridge amplifier of claim 63, wherein **⊽**6.

that third node of said switching bridge (3) is connected to the first node of the filtering capacitor (91)

the second node of said filtering capacitor (91) is connected to the first node of an additional load (92), and

the second hode of said additional load (92) is connected to the fourth node of said switching bridge (3).

- The boost bridge amplifier of claim 63, wherein load (5) is a dual voice coil 77. loudspeaker.
- The boost bridge amplifier of claim 63, wherein all active switches are 78. semiconductor switches, such as mosfets, IGBT, bipolar transistors or MCT.
  - The three-phase boost bridge amplifier of claim 54, wherein 79.

the first node of said power supply (1) is connected to the first node of the first phase (51) of said load (5), the first node of the second phase (52) of said load (5), and the first node of the third phase (53) of said load (5),

the second node of said power supply (1) is connected to the second node of said switching bridge (3) and the second node of said bridge capacitor (6),

the first node of said bridge capacitor (6) is connected to the first node of said switching bridge (3),

the second node of the first phase (51) of said load (5) is connected to the first node of the first filtering inductor (41),

the second node of the first filtering inductor (41) is connected to the third node of said switching bridge (3),

the second node of the second phase (52) of said load (5) is connected to the first node of the second filtering inductor (42),

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the second node of the second filtering inductor (42) is connected to the fourth node of said switching bridge (3),

the second node of the third phase (53) of said load (5) is connected to the first node of the third filtering inductor (43),

the second node of the third filtering inductor (43) is connected to the fifth node of said switching bridge (3),

the first active switch (31) of said switching bridge (3) is connected between the first and third nodes of said switching bridge (3),

the first diode (71) anode is connected to the third node of said switching bridge (3), and the first diode (71) cathode is connected to the first node of said switching bridge (3),

the second active switch (32) of said switching bridge (3) is connected between the third and second nodes of said switching bridge (3),

the second diode (72) anode is connected to the second node of said switching bridge (3), and the second diode (72) cathode is connected to the third node of said switching bridge (3),

the third active switch (33) of said switching bridge (3) is connected between the first and fourth nodes of said switching bridge (3),

the third diode (73) anode is connected to the fourth node of said switching bridge (3), and the third diode (73) cathode is connected to the first node of said switching bridge (3),

the fourth active switch (34) of said switching bridge (3) is connected between the fourth and second nodes of said switching bridge (3),

the fourth diode (74) anode is connected to the second node of said switching bridge (3), and the fourth diode (74) cathode is connected to the fourth node of said switching bridge (3),

the fifth active switch (35) of said switching bridge (3) is connected between the first and fifth nodes of said switching bridge (3),

the fifth diode (75) anode is connected to the fifth node of said switching bridge (3), and the fifth diode (75) cathode is connected to the first node of said switching bridge (3),

the sixth active switch (36) of said switching bridge (3) is connected between the fifth and second nodes of said switching bridge (3), and

the sixth diode (76) anode is connected to the second node of said switching bridge (3), and the sixth diode (76) cathode is connected to the fifth node of said switching bridge (3).

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80. The three-phase boost bridge amplifier of claim 79, wherein

the first node of the first filtering inductor (41) is connected to the first node of the first filtering capacitor (81),

the second node of said bridge capacitor (6) is connected to the second node of the first filtering capacitor (81),

the first node of the second filtering inductor (42) is connected to the first node of the second filtering capacitor (82),

the second node of said bridge capacitor (6) is connected to the second node of the second filtering capacitor (82).

the first node of the third filtering inductor (43) is connected to the first node of the third filtering capacitor (83), and

the second node of said bridge capacitor (6) is connected to the second node of the third filtering capacitor (83).

- 81. The boost bridge amplifier of claim 80, wherein load (5) is a three-phase electric motor.
- 82. The boost bridge amplifier of claim 80, wherein all active switches are semiconductor switches, such as mosfets, IGBT, bipolar transistors or MCT.
  - 83. The three-phase boost bridge amplifier of claim 79, wherein

the second node of said power supply (1) is connected to the first node of the first phase (51) of said load (5), the first node of the second phase (52) of said load (5), and the first node of the third phase (53) of said load (5),

the first node of said power supply (1) is connected to the first node of said switching bridge (3) and the first node of said bridge capacitor (6), and

the second node of said bridge capacitor (6) is connected to the second node of said switching bridge (3).

84. The three-phase boost bridge amplifier of claim 83, wherein

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the first node of the first filtering inductor (41) is connected to the first node of the first filtering capacitor (81),

the first node of said bridge capacitor (6) is connected to the second node of the first filtering capacitor (81),

the first node of the second filtering inductor (42) is connected to the first node of the second filtering capacitor (82),

the first node of said bridge capacitor (6) is connected to the second node of the second filtering capacitor (82),

the first node of the third filtering inductor (43) is connected to the first node of the third filtering capacitor (83), and

the first node of said bridge capacitor (6) is connected to the second node of the third filtering capacitor (83).

- 85. The boost bridge amplifier of claim 84, wherein load (5) is a three-phase electric motor.
- 86. The boost bridge amplifier of claim 84, wherein all active switches are semiconductor switches, such as mosfets, IGBT, bipolar transistors or MCT.
- 87. The boost bridge amplifier of claim 83, wherein load (5) is a three-phase electric motor.
- 88. The boost bridge amplifier of claim 83, wherein all active switches are semiconductor switches, such as mosfets, IGBT, bipolar transistors or MCT.
- 89. The boost bridge amplifier of claim 79, wherein load (5) is a three-phase electric motor.
- 90. The boost bridge amplifier of claim 79, wherein all active switches are semiconductor switches, such as mosfets, IGBT, bipolar transistors or MCT.

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SUX COX 91. The boost bridge amplifier of claim 54, wherein load (5) is a dual voice coil loudspeaker.

92. The boost bridge amplifier of claim 54, wherein load (5) is a three-phase electric motor.

93. The boost bridge amplifier comprising:

a power supply (1), having a first and a second nodes,

a mono- or poly-phase load (5), having a first and a second nodes per each phase,

a switching bridge (3), having a first and a second nodes, common for all phases, and an output node per each phase,

a bridge capacitor (6), having a first and a second nodes,

characterized in that,

the first node of said power supply (1) is connected to the first node of each phase of said load (5) and the second node of said bridge capacitor (6),

the second node of said power supply (1) is connected to the second node of said switching bridge (3),

the first node of said bridge capacitor (6) is connected to the first node of said switching bridge (3), and

the second node of each phase of said load (5) is connected to the output node of the appropriate phase of said switching bridge (3).

94. The mono-phase boost bridge amplifier of claim 93, wherein

the first node of said power supply (1) is connected to the first node of the first phase (51) of said load (5) and the second node of said bridge capacitor (6),

the second node of said power supply (1) is connected to the second node of said switching bridge (3),

the first node of said bridge capacitor (6) is connected to the first node of said switching bridge (3),

the second node of the first phase (51) of said load (5) is connected to the third node of said switching bridge (3),

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the first active switch (31) of said switching bridge (3) is connected between the first and third nodes of said switching bridge (3),

the first diode (71) anode is connected to the third node of said switching bridge (3), and the first diode (71) cathode is connected to the first node of said switching bridge (3),

the second active switch (32) of said switching bridge (3) is connected between the third and second nodes of said switching bridge (3), and

the second diode (72) anode is connected to the second node of said switching bridge (3), and the second diode (72) cathode is connected to the third node of said switching bridge (3).

The mone-phase boost bridge amplifier of claim 94, wherein 95.

the second node of said power supply (1) is connected to the first node of the first phase (51) of said load (5) and the first node of said bridge capacitor (6),

the first node of said power supply (1) is connected to the first node of said switching bridge (3), and

the second node of said bridge capacitor (6) is connected to the second node of said switching bridge (3).

- The boost bridge amplifier of claim 95, wherein all active switches are 96. semiconductor switches, such as mosfets, IGBT, bipolar transistors or MCT.
- The boost bridge amplifier of claim, 94, wherein all active switches are 97. semiconductor switches, such as mosfets, IGBT, bipolar transistors or MCT.
  - The two-phase boost bridge amplifier of claim 93\wherein 98.

the first node of said power supply (1) is connected to the first node of the first phase (51) of said load (5), the first node of the second phase (52) of said load (5) and the second node of said bridge capacitor (6),

the second node of said power supply (1) is connected to the second node of said switching bridge (3),

the first node of said bridge capacitor (6) is connected to the first node of said switching bridge (3),

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the second node of the first phase (51) of said load (5) is connected to the third node of said switching bridge (3),

the second node of the second phase (52) of said load (5) is connected to the fourth node of said switching bridge (3),

the first active switch (31) of said switching bridge (3) is connected between the first and third nodes of said switching bridge (3),

the first diode (71) anode is connected to the third node of said switching bridge (3), and the first diode (71) cathode is connected to the first node of said switching bridge (3),

the second active switch (32) of said switching bridge (3) is connected between the third and second nodes of said switching bridge (3),

the second diode (72) anode is connected to the second node of said switching bridge (3), and the second diode (72) cathode is connected to the third node of said switching bridge (3),

the third active switch (33) of said switching bridge (3) is connected between the first and fourth nodes of said switching bridge (3),

the third diode (73) and is connected to the fourth node of said switching bridge (3), and the third diode (73) cathode is connected to the first node of said switching bridge (3),

the fourth active switch (34) of said switching bridge (3) is connected between the fourth and second nodes of said switching bridge (3), and

the fourth diode (74) anode is connected to the second node of said switching bridge (3), and the fourth diode (74) cathode is connected to the fourth node of said switching bridge (3).

# 99. The two-phase boost bridge amplifier of claim 98, wherein

the second node of said power supply (1) is connected to the first node of the first phase (51) of said load (5), the first node of the second phase (52) of said load (5) and the first node of said bridge capacitor (6),

the first node of said power supply (1) is connected to the first node of said switching bridge (3), and

the second node of said bridge capacitor (6) is connected to the second node of said switching bridge (3).

100. The two-phase boost bridge amplifier of claim 99, wherein

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the third node of said switching bridge (3) is connected to the first node of the filtering capacitor (91),

the second node of said filtering capacitor (91) is connected to the first node of an additional load (92), and

the second node of said additional load (92) is connected to the fourth node of said switching bridge (3)

101. The boost bridge amplifier of claim 99, wherein load (5) is a dual voice coil loudspeaker.

102. The boost bridge amplifier of claim 94, wherein all active switches are semiconductor switches, such as mosfets, IGBT, bipolar transistors or MCT.

103. The two-phase boost bridge amplifier of claim 98, wherein

the third node of said switching bridge (3) is connected to the first node of the filtering capacitor (91),

the second node of said filtering capacitor (91) is connected to the first node of an additional load (92), and

the second node of said additional load (92) is connected to the fourth node of said switching bridge (3).

- 104. The boost bridge amplifier of claim 98, wherein load (5) is a dual voice coil loudspeaker.
- 105. The boost bridge amplifier of claim 98, wherein all active switches are semiconductor switches, such as mosfets, IGBT, bipolar transistors or MCT.
  - 106. The three-phase boost bridge amplifier of claim 93, wherein

the first node of said power supply (1) is connected to the first node of the first phase (51) of said load (5), the first node of the second phase (52) of said load (5), the first node of the third phase (53) of said load (5), and the second node of said bridge capacitor (6),

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the second node of said power supply (1) is connected to the second node of said switching bridge (3),

the first node of said bridge capacitor (6) is connected to the first node of said switching bridge (3),

the second node of the first phase (51) of said load (5) is connected to the third node of said switching bridge (3),

the second node of the second phase (52) of said load (5) is connected to the fourth node of said switching bridge (3),

the second node of the third phase (53) of said load (5) is connected to the fifth node of said switching bridge (3),

the first active switch (31) of said switching bridge (3) is connected between the first and third nodes of said switching bridge (3),

the first diode (71) anode is connected to the third node of said switching bridge (3), and the first diode (71) cathode is connected to the first node of said switching bridge (3),

the second active switch (32) of said switching bridge (3) is connected between the third and second nodes of said switching bridge (3),

the second diode (72) anode is connected to the second node of said switching bridge (3), and the second diode (72) cathode is connected to the third node of said switching bridge (3),

the third active switch (33) of said switching bridge (3) is connected between the first and fourth nodes of said switching bridge (3),

the third diode (73) anode is connected to the fourth node of said switching bridge (3), and the third diode (73) cathode is connected to the first node of said switching bridge (3),

the fourth active switch (34) of said switching bridge (3) is connected between the fourth and second nodes of said switching bridge (3),

the fourth diode (74) anode is connected to the second node of said switching bridge (3), and the fourth diode (74) cathode is connected to the fourth node of said switching bridge (3),

the fifth active switch (35) of said switching bridge (3) is connected between the first and fifth nodes of said switching bridge (3),

the fifth diode (75) anode is connected to the fifth node of said switching bridge (3), and the fifth diode (75) cathode is connected to the first node of said switching bridge (3),

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the sixth active switch (36) of said switching bridge (3) is connected between the fifth and second nodes of said switching bridge (3), and

the sixth diode (76) anode is connected to the second node of said switching bridge (3), and the sixth diode (76) cathode is connected to the fifth node of said switching bridge (3).

107. The three-phase boost bridge amplifier of claim 106, wherein

the second node of the said power supply (1) is connected to the first node of the first phase (51) of said load (5), the first node of the second phase (52) of said load (5), the first node of the third phase (53) of said load (5) and the first node of said bridge capacitor (6),

the first node of the said power supply (1) is connected to the first node of said switching bridge (3), and

the second node of said bridge capacitor (6) is connected to the second node of said switching bridge (3).

- 108. The boost bridge amplifier of claim 107, wherein load (5) is a three-phase electric motor.
- 109. The boost bridge amplifier of claim 107, wherein all active switches are semiconductor switches, such as mosfets, IGBT, bipolar transistors or MCT.
- 110. The boost bridge amplifier of claim 106, wherein load (5) is a three-phase electric motor.
- 111. The boost bridge amplifier of claim 106, wherein all active switches are semiconductor switches, such as mosfets, IGBT, bipolar transistors of MCT.
- 112. The boost bridge amplifier of claim 93, wherein load (5) is a dual voice coil loudspeaker.
- 113. The boost bridge amplifier of claim 93, wherein load (5) is a three-phase electric motor.